

KIM et al. - 10/615,830
Attorney Docket: 006691-0304704

IN THE CLAIMS:

This listing of claims will replace all prior versions, and listings, of claims in the application:

1. (Currently amended) An electric heating type rolling device for rolling a metal strip moving in a direction, comprising:

at least one pair of work rolls for rolling said metal strip while contacting the metal strip;

a power supply for generating a pulse current; and

first and second conductive electrode means which are electrically connected to said power supply for applying said pulse current to said metal strip, the first conductive electrode means being disposed in a location before said metal strip passes through said work rolls, and the second conductive electrode means being disposed opposite to the first conductive electrode means in a location after said metal strip has been rolled by said work rolls and passed thereby,

wherein said first and second conductive electrode means respectively consist of a pair of plate-shaped contact members which are disposed contactingly above and below said metal strip, each said contact member including a first contact portion contacting said metal strip, a second contact portion contacting said metal strip at a position closer to said work rolls than said first contact portion, and a flat portion for connecting said first contact portion and said second contact portion while being spaced apart from said metal strip.

2. (Canceled)

3. (Currently amended) The electric heating type rolling device of Claim [[2]] 1, wherein said second contact portion is forked into several pieces along the transverse direction of said metal strip.

4. (Currently amended) The electric heating type rolling device of Claim [[2]] 1, wherein said contact members are provided with an elastic member for biasing said second contact portion toward said metal strip to contact said metal strip with no gap.

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5. (Canceled)

6. (Currently amended) An electric heating type rolling device for rolling a metal strip moving in a direction, comprising:

at least one pair of work rolls for rolling said metal strip while contacting said metal strip;

a power supply for generating a pulse current; and

a conductive electrode means which is disposed in a location before said metal strip passes through said work rolls,

wherein said work rolls and said conductive electrode means are electrically connected to said power supply for applying the pulse current to said metal strip,

and wherein said conductive electrode means consists of a pair of plate-shaped contact members which are disposed contactingly above and below said metal strip, each said contact member including a first contact portion contacting said metal strip, a second contact portion contacting said metal strip at a position closer to said work rolls than said first contact portion, and a flat portion for connecting said first contact portion and said second contact portion while being spaced apart from said metal strip.

7. (Canceled)

8. (Currently amended) The electric heating type rolling device of Claim [[7]] 6, wherein said second contact portion is forked into several pieces along the transverse direction of said metal strip.

9. (Currently amended) The electric heating type rolling device of Claim [[7]] 6, wherein said contact members are provided with an elastic member for biasing said second contact portion toward said metal strip to contact said metal strip with no gap.

10. (Canceled)